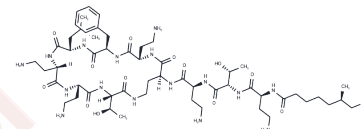


Polymyxin B1

Chemical Properties

CAS No. :	4135-11-9
Formula:	C ₅₆ H ₉₈ N ₁₆ O ₁₃
Molecular Weight:	1203.48
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Polymyxin B1, a potent antimicrobial lipopeptide derived from <i>Bacillus polymyxa</i> , has potential for treating multidrug-resistant Gram-negative bacterial infections.
Targets(IC50)	Others,Antibacterial
In vitro	Polymyxin B1 strongly inhibits protein synthesis in yeast, and in <i>E. coli</i> and <i>S. aureus</i> [4].
In vivo	The area under the concentration-time curve for Polymyxins B1 is greater than those of colistins A and B. Colistin A colistin B. The clearance value of Polymyxins B1 is 2.39 mL/min/kg, the plasma protein binding is 82.3%, the elimination half-life is 79.5 min and the AUC _{0-∞} is 365 mg·min/L.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8309 mL	4.1546 mL	8.3092 mL
5 mM	0.1662 mL	0.8309 mL	1.6618 mL
10 mM	0.0831 mL	0.4155 mL	0.8309 mL
50 mM	0.0166 mL	0.0831 mL	0.1662 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Kwa AL, et al. Pharmacokinetics of polymyxin B1 in patients with multidrug-resistant Gram-negative bacterial infections. *Diagn Microbiol Infect Dis.* 2008 Feb;60(2):163-7.
- Berglund NA, et al. Interaction of the antimicrobial peptide polymyxin B1 with both membranes of *E. coli*: a molecular dynamics study. *PLoS Comput Biol.* 2015 Apr 17;11(4):e1004180.
- Tam VH, et al. In vitro potency of various polymyxin B components. *Antimicrob Agents Chemother.* 2011 Sep;55(9):4490-1.
- Alonso MA, et al. Compounds affecting membranes that inhibit protein synthesis in yeast. *Antimicrob Agents Chemother.* 1979 Dec;16(6):750-6.
- Sivanesan S, et al. Pharmacokinetics of the Individual Major Components of Polymyxin B and Colistin in Rats. *J Nat Prod.* 2017 Jan 27;80(1):225-229.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481